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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,728	03/13/2001	Kannan Srinivasan	696.005	2029
35195	7590	06/21/2006		
FERENCE & ASSOCIATES 409 BROAD STREET PITTSBURGH, PA 15143			EXAMINER RETTA, YEHDEGA	
			ART UNIT 3622	PAPER NUMBER

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/804,728	Applicant(s) SRINIVASAN ET AL.	
	Examiner Yehdega Retta	Art Unit 3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This office action is in response to Request of Continued Examination filed April 4, 2006. Applicant amended claims 1 and 13. Claims 1-13 are still pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herz et al. U.S. Application No. US 2001/0014868, in view of Dahm et al. U.S. Patent No. 6,301,471.

Regarding claims 1, 9-11 and 13, Herz teaches monitoring web-surfer behavior and predicting future surfer behavior and determining a range of offers and providing a promotion to the customer based on the customer behavior (see abstract, par. [0004] to [0011], [0023] to [0046]. *Herz teaches wherein the offers include optimal advertisements determined from real time learning from dynamic analyzes of promotional experimentation (see [003]).* Herz teaches providing offers based on user profile attributes including elapsed time period since the last purchase (period of time since the last interaction with the web site), elapsed time period between purchases, etc., storing the data in a database (see [0246]). Herz does not explicitly teach specifying a permissible defunct threshold; determining a probability that a customer will become a defunct after a predetermined period of time has occurred, it is taught in Dahm. Dahm teaches monitoring subscribers behavior. A churn likelihood being predicted based on the

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subscriber behavior information, such as usage behavior and providing an offer the customer for the purpose of retaining the customer (see col. 11 line 55 to col. 12 line 32, col. 13 lines 12-26 and col. 15 lines 25-49). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Dahm's defunct threshold in Herz's customized price and promotion system. One would be motivated to set up a threshold value as taught in Dahm in order to predict a customer who is most likely to churn or discontinue the service, and to provide a proper offer to retain such customers. It would be obvious to use Herz's profile attributes, such as the last interaction of the customer with the web site, and set a threshold value to determine the probability the customer would become a defunct.

Regarding claims 2-5 Herz teaches sampling of customers and segmenting the sample population based on a characteristic of the customers sampled; wherein characteristic is amount spent on a web site, interaction with a web site or purchase made at a web site (see [0205] to [0235]).

Regarding claims 6-8 and 12, Herz teaches selection of the promotion is based on predetermined criteria, such as profit, by optimizing an amount of discount offered in the promotion; optimizing performed continuously; wherein the optimization includes sampling responses received from customers to the offer ... the promotion amount provided to other customers based on the promotion discovered in the sample (see [0236] to [0246]).

Response to Arguments

Applicant's arguments filed April 4, 2006 have been fully considered but they are not persuasive.

Applicant asserts that Herz contemplates a system with the ability to automatically determine which product a shopper would be most likely to buy and which offer vendor should make available to the shopper in order to maximize vendor's profit. Applicant asserts that the profiles are used to determine product and offers to present to shopper. Applicant argues that there is no teaching or suggestion that these promotional offered to the customer by Herz are based on real-time learning from promotional experimentation of various promotions offered to various consumers. Examiner respectively disagrees with Applicant's assertion. Herz teaches tracking shoppers' behavior and the offers they consider. Herz teaches grouping together shoppers, or offers, with similar profiles tends to exhibit a fairly homogeneous response toward a homogeneous group of offers which is useful in drawing generalization about future behaviors and predicting the probability that a given shopper will accept a particular offer which is useful in deciding which of several offers to make. Herz also teaches predicting the expected profit from making a particular offer (see [0005]- [0010]). Herz, see [0037], teaches the likelihood of acceptance can be calculated, in simplest case, by counting what fraction of shoppers (or similar shoppers) who were presented with offer (or similar offers) chose to accept. Therefore, Herz teaches real-time learning from promotional experimentation of various promotions offer to various consumers. Herz further teaches user profile attributes including elapsed time period since the last purchase, elapsed time period between purchases (average), ranges elapsed period to previous offers, total amount spent over the last 6 months, etc. Herz teaches if a customer (particularly a long term customer) has recently been lost, the system may find it advantageous to use the most aggressive promotional offers possible in order to reinitiate lost loyalties and less aggressive discounting may be appropriate for very loyal customer. Herz anticipates that a

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customer becomes defunct (lost) after some elapsed time period. Herz also takes under consideration the average time elapsed between purchases however failed to explicitly teach determining a permissible threshold value in order to retain a customer. Even though the method and system of providing subscriber's loyalty and retention techniques of Dahm is used in customer's of mobile devices, Dahm teaches specifying a threshold value based on customer profile and determining a probability that the customer would be defunct (churn). Dahm teaches the subscriber loyalty application identifies a subscriber who may be susceptible to churning, and once the susceptible subscriber is identified generating a customized customer retention offer to the susceptible subscriber. Dahm further teaches the susceptible subscriber is typically identified by comparing stored customer profile information with a group of predetermined threshold values associated with the profile information and based on the comparison a churn susceptibility index is generated. Further Dahm teaches a subscriber having profile information (churn susceptibility index), which exceeds the threshold values, is identified as susceptible to churning (see col. 8 line 55 to col. 9 line 4, col. 10 lines 14-29, col. 12 lines 1-32). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Dahm's threshold values, for identifying customer who have been statistically identified as being susceptible to churning (defunct) in Herz's customized price and promotion system to loyal customers. One would be motivated to identify Herz's customers before they are considered lost by identifying the customer as being risk for churning (defunct) and applying customized offer, as in Dahm. Dahm's method provides the advantage of identifying customer before they are lost as customers and avoids Herz's aggressive promotional offers possible in order to reinitiate lost loyalties. Dahm solves the problem of losing customer not only by understanding the cause of

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losing (churning) customers but also by understanding which particular customer are most likely to churn (defunct) (see col. 1 lines 43-53).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yehdega Retta whose telephone number is (571) 272-6723. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YR


RETTA YEHDEGA
PRIMARY EXAMINER